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EMCSE 1.1.1  
RCRA file 1a  
4/10/01

ASTARIS LLC  
Box 4111  
Pocatello, Idaho 83205  
208-236-8200

April 2, 2001

EPA, Region 10  
CR-ERNS Coordinator  
Superfund Response and Investigation Section  
1200 Sixth Avenue  
Seattle, WA 98101

RE: CERCLA and SARA Hazardous Substances Continuous Release Notification, FMC-  
Pocatello Plant, CR-ERNS Number 282388

Dear Sir/Madam:

As per 40 CFR 302.8(f), Astaris, Idaho LLC is providing the required written follow-up notification to an initial written notification dated April 3, 2000.

The following are changes in information submitted in the April 3, 2000 report: 1). The facility is no longer operated by FMC Corporation – the new operator name is Astaris, 2). The total quantity of Hydrogen Fluoride released in 1999 was reported as 246 lbs. – the correct amount is 30,061 lbs., 3). For hazardous substance Hydrogen Cyanide, phosphy pond 16 was closed in 1999 and therefore has been removed as a source in 2000, 4). For hazardous substance Phosphine, phosphy pond 16 was closed in 1999 and therefore has been removed as a source in 2000, 5). For hazardous substance Hydrogen Fluoride, slag pit digging was discontinued in 1999 and therefore has been removed as a source in 2000.

Accompanying this letter is the first anniversary follow-up report and the 2001 annual review summary. The 2001 annual review reflects a reduction in phosphorus to the Phosphy ponds versus 1999 and a reduction in Phosphine and Hydrogen Cyanide emissions off the Phosphy ponds versus 1999.

If you have any questions regarding this notification, please call me at 208-236-8207.

Sincerely,

Lisa Naccarato  
EMS Manager/Environmental Engineer

Encl: First anniversary follow-up report  
2000 Continuous release review

CC: Reginald Thorpe, The Sho-Ban Tribes Dept. of Public Safety



Summary of annual review conducted for continuous releases

Year reviewed: 2000

Review completed as of April 2, 2001

The following chemicals were determined to require reporting as continuous releases:

Sulfur Dioxide

Nitrogen Oxides (NOX)

Hydrogen Cyanide

Phosphine

Phosphorus

The review of Sulfur Dioxide indicated that emissions were below the upper bound of 45,000 lbs/day. The total amount of SO<sub>2</sub> released in 2000 was 7,337,223 lbs/year (3669 tpy). [CR ERNS 282388]

The review of Nitrogen Oxides (NOX) indicated that emissions were below the upper bound of 20,000 lbs/day. The total NOX released in 2000 was 2,527,452 lbs (1264 tpy). [CR ERNS 282388]

The review of Hydrogen Cyanide indicated that emissions were below the upper bound of 616 lbs/day. The total amount of HCN released in 2000 was 178,735 lbs/year (89 tpy). Pond 16 was closed for the entire year 2000; therefore, it has been removed as a source. New upper bound, 565 lbs/day; new lower bound, 353 lbs/day. [CR ERNS 282388]

The review of Phosphine indicated that emissions were below the upper bound of 290 lbs/day. The total Phosphine released in 2000 was 51,115 lbs/year (25 tpy). Pond 16 was closed for the entire year 2000; therefore, it has been removed as a source. New upper bound, 166 lbs/day; new lower bound, 91 lbs/day. [CR ERNS 282388]

The review of Phosphorus indicated that emissions were below the reported upper bound range 12,000 lbs/day. The total amount of Phosphorus released in 2000 was 979,301 lbs/year (490 tpy). The new upper bound is 3,167 lbs/day; the new lower bound is 1,911 lbs/day. [CR ERNS 282388]

The review of Hydrogen Fluoride indicated that emissions were below the reported upper bound range 200 lbs/day. There was no slag pit tapping in 2000; therefore, slag pit Hydrogen Fluoride emissions have been removed as a source. The total amount of Hydrogen Fluoride released in 2000 was 28,761 lbs/year (14 tpy). [CR ERNS 282388]

Radionuclides were reviewed and determined to be below RQ reporting threshold values. Polonium 210, also below reporting thresholds, is federally permitted; therefore, exempt from continuous release reporting. [CR ERNS 282388]

Ammonia and Hydrogen Sulfide emissions were reviewed and determined to be below RQ reporting thresholds.

**SECTION I: GENERAL  
INFORMATION**

CR-ERNS Number: 282388

Date of Initial Release: 3/10/2000

Date of Initial Call to NRC: 3/10/2000

**Type of Report:** Indicate below the type of report you are submitting.

☐

Initial Written Notification

☒

First Anniversary  
Follow-up  
Report

☐

Written Notification  
of a Change to  
Initial Notification

☐

Written Notification  
of a Change to  
Follow-up Report

**Signed Statement:** I certify that the hazardous substances releases described herein are continuous and stable in quantity and rate under the definitions in 40 CFR 302.8(a) or 355.4(a)(2)(iii) and that all submitted information is accurate and current to the best of my knowledge.

Paul R. Yochum / Plant Manager

Name and Position

April 3, 2001  
Date

[Signature]  
Signature

**Part A. Facility or Vessel Information**

Name of Facility or Vessel

Astaris

Person  
in Charge  
of Facility  
or Vessel

Name of Person in Charge Paul R. Yochum

Position Plant Manager

Telephone No. (208) 236-8244

Alternate Telephone No. (208) 236-8236

Facility  
Address or  
Vessel  
Port of  
Registration

Street Highway 30, West of city

County Power

City Pocatello

State ID

Zip Code 83205

Dun and Bradstreet Number for Facility

07-092-9518

Facility/Vessel  
Location

Latitude Deg 042 Min 54 Sec 25

Longitude Deg 112 Min 32 Sec 27

Vessel LORAN Coordinates

N/A

**Part B. Population Information**

Population  
Density

Choose the range that describes the population density within a one-mile radius of your facility or vessel (Indicate by placing an "X" in the appropriate blank below).

\_\_\_ 0 - 50 persons

X 101 - 500 persons

\_\_\_ more than 1000 persons

\_\_\_ 51 - 100 persons

\_\_\_ 501 - 1000 persons

Sensitive  
Populations  
and  
Ecosystems  
Within One  
Mile Radius

Sensitive Populations or Ecosystems  
(e.g., schools, hospitals, wetlands, wildlife preserves, etc.)

Portneuf River and associated  
riparian areas and wetlands

Distance and direction from facility

0.5 mile

SECTION II: SOURCE  
INFORMATION

CR-ERNS Number: 282388

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.

*For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.*

Name of Source: Astaris

1. Indicate whether the release from this source is either:

continuous without interruption ☒ OR routine, anticipated, intermittent ☐

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.\*

Phosphorus is released to lined waste ponds via a water slurry from the furnace building and the phos dock. Phosphorus is also released via the flares; however, it is immediately converted to Phosphorus Pentoxide upon contact with air.

Released of Phosphine, Hydrogen Cyanide to the air are associated with pond emissions, but also may be released from flares and scrubbing operations. Nitric Oxide, Sulfur Dioxide and Hydrogen Fluoride are emitted to the air from the scrubbers, but may also be released from flares, boilers and as fugitive emissions in the furnace and calciner areas.

The plant operates continuously (365 d/yr).

3. Identify below how you established the pattern of release and calculated release estimates.

☒ Past release data      ☒ Knowledge of the facility/vessel's operations and release history      ☒ Engineering estimate  
☒ AP-42      ☒ Best professional judgment      ☐ Other (explain)

\* Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.

SECTION II: SOURCE  
INFORMATION  
(continued)

CR-ERNS Number: 282388

Name of Source: Astaris

**Part B: Specific Information on the Source**

*For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.*

**AFFECTED MEDIUM.** Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

☒ **AIR** X (stack X or area X) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

If identified source is a **stack**, indicate stack height: \_\_\_\_\_ feet or meters; OR

If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: \_\_\_\_\_ square feet or square meters.

☐ **SURFACE WATER** N/A (stream \_\_\_\_\_, lake \_\_\_\_\_, or other \_\_\_\_\_)

If the release affects any **surface water body**, give the name of the water body.

If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second.  
stream order: \_\_\_\_\_ or average flow rate: \_\_\_\_\_ cubic feet/second; OR

If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.  
surface area of lake: \_\_\_\_\_ acres and average depth of lake: \_\_\_\_\_ meters.

☐ **SOIL OR GROUND WATER** N/A

If the release is on or under ground, indicate the distance to the closest water well.

**Optional Information**

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

For a stack release to air, provide the following information, if available:

Inside diameter \_\_\_\_\_ feet or meters

Gas Exit Velocity \_\_\_\_\_ feet/second or  
\_\_\_\_\_ meters/second

Gas Temperature \_\_\_\_\_ degrees Fahrenheit,  
Kelvin, or Celsius

For a release to surface water, provide the following information, if available:

Average Velocity \_\_\_\_\_ feet/second  
of Surface Water

N/A

**SECTION II: SOURCE INFORMATION**  
(continued)

CR-ERNS Number: 282388

**Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source**

*Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.*

Name of Source: Astaris

(List of sources for each hazardous substance is attached.)

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

<u>Name of Hazardous Substance</u>	<u>CASRN #</u>	<u>Normal Range</u> (in lbs. or kg per day)*		<u>Number of Days</u> <u>Release Occurs</u> (per year)	<u>Total Quantity</u> <u>Released in Previous Year</u> (in lbs. or kg)*	<u>Months of the</u> <u>Release</u>
		<u>Upper Bound</u>	<u>Lower Bound</u>			
Phosphine	7803512	166 lbs	91 lbs	365	51,115 lbs	12
Hydrogen Cyanide	74908	565 lbs	353 lbs	365	178,735 lbs	12
Phosphorus	7723140	3,167 lbs	1,911 lbs	365	979,301 lbs.	12
Hydrogen Fluoride	7664393	186 lbs	83 lbs	365	28,761 lbs.	12
Nitric Oxide	10102439	20,000 lbs	10,000 lbs	365	2,527,452 lbs	12

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

<u>Name of Mixture</u>	<u>Name of Hazardous Substance Components</u>	<u>CASRN#</u>	<u>Weight Percentage</u>	<u>Normal Range of Components</u> (in lbs. or kg per day)*		<u>Normal Range of Mixture</u> (in lbs. or kg per day)*		<u>Number of Days Release Occurs</u> (per year)	<u>Total Quantity of Mixture Released in Previous Year</u> (in lbs. or kg)	<u>Months of the Release</u>
				<u>Upper Bound</u>	<u>Lower Bound</u>	<u>Upper Bound</u>	<u>Lower Bound</u>			

\* Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.

SECTION III: SUBSTANCE  
INFORMATION

CR-ERNS Number: 282388

Calculation of the SSI Trigger

*For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.*

Name of Hazardous Substance: Hydrogen Cyanide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)

Upper Bound of the Normal Range of  
the Release (specify lbs., kg. or Ci)

Secondary Flare

4 lbs

Ground Flare

1 lbs

Phossy Ponds 17, 18

560 lbs

TOTAL - SSI trigger for this hazardous substance release\* : 565 lbs

*\* This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

### SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 282388

#### Calculation of the SSI Trigger

*For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.*

Name of Hazardous Substance: Hydrogen Fluoride

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

#### Name of Source(s)

#### Upper Bound of the Normal Range of the Release (specify lbs., kg. or Ci)

Ground Flare	2 lbs
Secondary Flare	2
Calciner Scrubbers	70
Calciner Coolers	103
Calciner Fugitives	2
Furnace Scrubbers	4
Furnace Fugitives	3

TOTAL - SSI trigger for this hazardous substance release\* : 186 lbs

*\* This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*



### SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 282388

#### Calculation of the SSI Trigger

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Name of Hazardous Substance: Nitric Oxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

<u>Name of Source(s)</u>	<u>Upper Bound of the Normal Range of the Release (specify lbs., kg, or Ci)</u>
Secondary Flare	617 lbs
Ground Flare	154
Boilers	210
Calciner Scrubbers	17,767
Calciner Coolers	22
Furnace Scrubbers	122
Phos Dock Scrubber	367
Calciner Fugitives	79
Furnace Fugitives	42

TOTAL - SSI trigger for this hazardous substance release\* 20,000 lbs

*\* This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE  
INFORMATION

CR-ERNS Number: 282388

Calculation of the SSI Trigger

*For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.*

Name of Hazardous Substance: Phosphine

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)

Upper Bound of the Normal Range of  
the Release (specify lbs., kg. or Ci)

Secondary Flare	13 lbs
Ground Flare	3
Phos Dock Scrubber	18
Furnace Building Fugitives	27
Phos Loading Dock Fugitives	5
Phossy Ponds 17, 18	100

TOTAL - SSI trigger for this hazardous substance release\* : 166 lbs

\* This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.

### SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 282388

#### Calculation of the SSI Trigger

*For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.*

Name of Hazardous Substance: Phosphorus

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

#### Name of Source(s)

#### Upper Bound of the Normal Range of the Release (specify lbs., kg. or Ci)

Ground Flare	2 lbs.
Secondary Flare	15 lbs.
Phossy Pond 18	2,600 lbs.
Phossy Pond 17	550 lbs.

TOTAL - SSI trigger for this hazardous substance release\* : 3,167 lbs

*\* This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*